

L20 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:267986 CAPLUS
 DN 124:283715
 ED Entered STN: 08 May 1996
 TI PEG-modified avidin for antigen or antibody separation
 IN Nishimura, Hiroyuki; Koderu, Hiroshi; Inada, Juji; Tsurui, Hironori
 PA Toin Gakuen, Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07K014-465
 ICS G01N033-53; G01N033-537
 CC 9-9 (Biochemical Methods)
 Section cross-reference(s): 15

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08012699	A2	19960116	JP 1994-144570	19940627 <--
PRAI	JP 1994-144570		19940627		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 08012699	ICM	C07K014-465
		ICS	G01N033-53; G01N033-537
AB	Polyethylene glycol-modified avidin is used for separating quantitating biotinylated antigen or antibody.		
ST	polyethylene glycol avidin antigen antibody biotin		
IT	Avidins		
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)		
	(PEG-modified avidin for separating biotinylated antigen or antibody)		
IT	Antibodies		
	Antigens		
	RL: PUR (Purification or recovery); PREP (Preparation)		
	(biotinylated; PEG-modified avidin for separating biotinylated antigen or antibody)		
IT	58-85-5, Biotin 25322-68-3, Polyethylene glycol		
	RL: MOA (Modifier or additive use); USES (Uses)		
	(PEG-modified avidin for separating biotinylated antigen or antibody)		
RN	58-85-5		
RN	25322-68-3		

L20 ANSWER 2 OF 3 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

AN 1996-112719 [12] WPIX
 DNN N1996-094450 DNC C1996-035415
 TI New PEG modified avidin - used for separation or determin. of antigen or antibody in sample by using complex containing biotin and PEG modified avidin.
 DC B04 D16 S03
 PA (KIRI-N) GH KIRIKAGE GAKUEN
 CYC 1
 PI JP 08012699 A 19960116 (199612)* 4 C07K014-465 <--
 ADT JP 08012699 A JP 1994-144570 19940627
 PRAI JP 1994-144570 19940627
 IC ICM C07K014-465
 ICS G01N033-53; G01N033-537
 AB JP 08012699 A UPAB: 19960322
 Avidin modified by PEG is new.

Also claimed is a method for the separation or the determin. of an antigen or an antibody contained in a sample by using a complex in which biotin is combined to an antigen or an antibody and avidin modified by PEG is combined in it.

ADVANTAGE - The complex is PEG-soluble and a complex prepared from an antigen protein is also PEG-soluble. It may be easily separated and detected.

In an example, specific egg white-originated avidin was dissolved in 0.3 M borate buffer to 1 mg/ml. An amount of activated 2,4-bis-(O-methoxypolyethylene glycol)-6-chloro-S-triazine was added to it and the mixture was adjusted to pH 7.0 with 1 N NaOH and reacted at 40 deg.C for 1.5 hr. It was ultrafiltered and centrifuged at 4 deg.C for 10 min. to give PEG-modified avidin. The biotin-combining activity was determined by using HABA. To investigate if the PEG-modified avidin maintains high affinity to a biotinized enzyme, the PEG-modified avidin was combined to biotinized peroxidase in a molar ratio of 1:1 and the affinity was examined by gel chromatography using Sephadex G-50. The PEG-modified avidin reacted quantitatively with the biotinized peroxidase. The behaviour of the PEG-modified avidin and unmodified avidin in an aqueous two-phase system of dextran/PEG was examined. The former was transferred quantitatively to the PEG phase, while the latter was not transferred.

Dwg.0/2

FS CPI EPI

FA AB; DCN

MC CPI: B04-B04C; B04-G01; B04-N02; B11-B; B12-K04; D05-H09
EPI: S03-E14H4

L20 ANSWER 3 OF 3 JAPIO (C) 2004 JPO on STN

AN 1996-012699 JAPIO

TI PEG-MODIFIED AVIDIN AND METHOD FOR SEPARATING ANTIGEN OR ANTIBODY USING THE SAME

IN NISHIMURA HIROYUKI; KODERA HIROSHI; INADA YUJI; TSURUI HIRONORI

PA TOUIN GAKUEN

PI JP 08012699 A 19960116 Heisei

AI JP 1994-144570 (JP06144570 Heisei) 19940627

PRAI JP 1994-144570 19940627

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1996

IC ICM C07K014-465

ICS G01N033-53; G01N033-537

AB PURPOSE: To obtain the subject avidin for specifically separating and determining an antigen and an antibody in an aqueous two-phase distribution system.

CONSTITUTION: Avidin is reacted with a reactive derivative of PEG such as 2,4-bis-(O-methoxypolyethylene glycol)-6-chloro-s-triazine in a buffer solution. The PEG chain is reacted with the side chain of avidin molecule and the amino group at the N end to give PEG-modified avidin. A complex in which biotin is bonded to an antigen or an antibody and avidin modified with polyethylene glycol is bonded to the antigen or the antibody is used to separate and determine the antibody or the antigen in a specimen.

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